UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,540	05/19/2006	Yoon Seong Soh	6111-000003/US	1467

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EXAMINER
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ART UNIT	PAPER NUMBER
2621	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/541,540	SOH ET AL.
Office Action Summary	Examiner	Art Unit	
	Tung Vo	2621	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>27 August 2009</u>.

2a)☒ This action is **FINAL**.　　2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>22-24</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>22-24</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>08 July 2005</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☒ All　b)☐ Some * c)☐ None of:

　　　　1.☒ Certified copies of the priority documents have been received.

　　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>06/30/2009</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 22-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Wang et al.

(US 2005/0117649).

Re claim 22, Wang discloses a method of determining a reference picture for decoding a

current field macroblock ([0014], a method of encoding, decoding, and bitstream generation of

digital video content comprises I, B, and P pictures), comprising: determining a reference picture

(102a, b of fig. 1; [0045]) for the current field macroblock from a reference picture list composed

of reference frames (e.g. fig. 6, reference frame number as reference picture list 5-0), by a

decoder, the reference picture being one of a P-picture and I-picture (fig. 1, shows I and P are

reference pictures), the determined reference picture being one of a top field and a bottom field

of a reference frame ([0100], Note Eq. 11 is used to generate prediction signal. However,

ref.sub.1 and ref.sub.2 are the fields that are indexed by reference field numbers, ref_idx_fwd

and ref_idx_bwd. The fields ref.sub.1 and ref.sub.2 can be either top or bottom fields. The

default weighting factors, w.sub.1 and w.sub.2, are (0.5, 0.5, 0) and (2, -1, 0), respectively);

wherein the determining step determines a field having a same parity as the current macroblock (e.g. fig. 10, [0076]-[0077], IN FIG. 10, the co-located block (906) is in a field of the same parity as is the block (905) in the current B picture (900)) or a different parity from the current macroblock ([0069], Another embodiment is that the skipped macroblock in the P picture is reconstructed by copying the co-located macroblock in the most recently coded reference field, which can be of a different field parity) as a reference picture (901 and 902 of fig. 10) based upon reference picture index information (10-0, reference field number as reference picture index information; [0103], Let n be the frame index or the frame number. The variable n is incremented by 1 per frame. If a frame with frame index n is encoded in frame mode, the TR of this frame is 2n. If a frame with frame index n is encoded in field mode, the TR of the first field of this frame is 2n and the TR of the second field is 2n+1) , index information (Let n be the frame index or the frame number, [0103]) for the reference frame and field parity of the current field macroblock;

wherein if the reference index information is an odd index number ([0103] If a frame with frame index n (n=1, 3, 5, 7) is encoded in field mode, the TR of the first field of this frame is 2n and the TR of the second field is 2n+1),the determined field has field parity different from the current field macroblock ([0103], note the TR of the second field is 2n+1; see also [0065, 0069]).

Re claim 23, Wang further discloses encoding/decoding ([0014]) the field macroblock using the determined reference picture.

Re claim 24, Wang further discloses wherein the reference picture index information is an even index number ([0103], n = 2), then the determined field has a same parity as the current field macroblock (e.g. fig. 10, [0077]).

Response to Arguments

1.   Applicant's arguments filed 08/27/2009 have been fully considered but they are not persuasive.

The applicant argues that Nothing in Wang the step determines a field having a same parity as the current macroblock or a different parity from the current macroblock as a reference picture based in part on reference picture index information; and determining a field having a different parity from the current macroblock if the reference picture index information is an odd index number.

The examiner respectfully disagrees with the applicant. It is submitted that Wang teaches the step for determining a field having a same parity as the current macroblock (e.g. fig. 10, [0076]-[0077], IN FIG. 10, the co-located block (906) as the current macroblock is in a field of the same parity as is the block (905) in the current B picture (900)) or a different parity from the current macroblock ([0069], note the skipped macroblock in the P picture is reconstructed by copying the co-located macroblock in the most recently coded reference field, which can be of a different field parity) as a reference picture (901 and 902 of fig. 10) based upon reference picture index information (reference field number as reference picture index information is by Wang in figures 7A, 7B, 8, REFERENCE FILED NUMBER). Wang further teaches ([0103]) let n be the frame index or the frame number. The variable n is incremented by 1 per frame. If a frame with

frame index n is encoded in frame mode, the TR of this frame is 2n. If a frame with frame index

n is encoded in field mode, the TR of the first field of this frame is 2n and the TR of the second

field is 2n+1), and index information (Let n be the frame index or the frame number, [0103]) for

the reference frame and field parity of the current field macroblock; the determined field has

field parity different from the current field macroblock ([0103], note the TR of the second field is

2n+1; see also [0065, 0069]) if the reference index information is an odd index number ([0103]

If a frame with frame index n (n=1, 3, 5, 7) is encoded in field mode, the TR of the first field of

this frame is 2n and the TR of the second field is 2n+1 (2n+1 is odd number)). In view of the

discussion above, Wang clearly anticipates the claimed features.

<div align="center">*Conclusion*</div>

        THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

        A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung Vo whose telephone number is 571-272-7340. The examiner can normally be reached on Monday-Wednesday, Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tung Vo/

Primary Examiner, Art Unit 2621